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CASE OF PNEUMONIA FOLLOWING GUN-SHOT WOUND OF THE CHEST.

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[Communicated for the Boston Medical and Surgical Journal.]

A PRIVATE of the 134th Reg't Pa. Vols., æt. 25, of medium height, and possessed of a remarkably muscular frame and vigorous constitution, was admitted into the Hammond General Hospital, Point Lookout, on the 16th of December, 1862, with a gun-shot wound of the left side and breast. The wound was received at the battle of Fredericksburg, on the 13th, and was caused by a round ball, which entered the left side just below the axilla, about over the fifth rib, which it injured slightly, and then passing upwards and inwards lodged superficially a little below the left clavicle, and about two inches from its sternal extremity, from which place it was extracted soon after the receipt of the wound. At the time of the patient's admission into the Hammond General Hospital, his general condition was highly favorable, his health having been excellent ever since enlisting. He made light of his wound, which was doing well, and appeared to cause him little or no trouble. The position of the wound being such as to render injury of the lung probable, a careful examination of the chest was made, and the patient closely questioned; but both the physical examination and the interrogation of the patient failed to elicit any evidence of lesion of the lung. The respiration was perfectly normal over the whole of the chest, and according to the statements of the patient there had been no hæmoptysis, dyspnœa, or other signs of injury of the lungs, either at the time of receiving the wound or since. Nothing of interest occurred in the progress of the case until Dec. 18th (two days after admission into the Hospital), on the afternoon of which day the patient had a severe chill, which lasted about two hours, and was then succeeded by fever, which lasted several hours more. On the following morning the patient appeared about as well as usual, but in the afternoon he suffered another attack of chill and fever. Quinine had been administered in the meantime, and after the last-mentioned attack he

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had no return of the disorder. He now appeared to be as well as when admitted into the Hospital, and this state of things continued until Dec. 24th; but on the morning of that day the patient complained of sharp pain in the left side, about the region of the nipple, accompanied by some dyspnæa; his pulse was about 95 and hard, and his skin hot and dry. A physical examination of the chest was immediately made, and fine crepitation, mingled with faint bronchial respiration, was detected in the upper lobe of the left Towards evening the patient began to cough, and to expectorate small quantities of mucus. He passed a very restless night, and on the following morning (Dec. 25th) commenced to expectorate nearly pure blood in considerable quantities whenever he coughed; the cough and dyspnœa also had increased considerably. The wounds of entrance and exit were dark and sloughy in appearance. On placing the ear upon the chest, the crepitation was found to be fainter than on the preceding day, and the bronchial respiration stronger; dulness on percussion and increased vocal resonance were also present; the pulse, skin, &c., were about the same as on the preceding day. On the 26th the crepitation had disappeared from the upper portion of the left lung, and had been superseded by bronchial respiration. Fine crepitation was now detected in the lower lobes of both lungs. The pulse was now 110, and feebler than on the previous day, and the dyspnæa had become very severe. Towards the evening of this day the expectoration, which had continued up to this time to be of nearly pure blood, began to assume the rusty hue of pneumonic sputa. On the 27th, auscultation and percussion showed no marked changes, but the patient's general condition was very unfavorable, his pulse being now very quick and feeble, and his strength much reduced. On the 28th and 29th there was no great change in the case, but on the morning of the 30th the patient was evidently sinking. The lungs were now examined for the last time, and bronchial respiration, with dulness on percussion, was found to be present over the whole of the left side, and also over the lower portion of the right. In the afternoon the patient became delirious, and continued in this state until evening, when he died quietly.

The body was examined the following morning (Dec. 31st, 1862). Dissection discovered the track of the ball under the integuments of the thorax, from the wound of entrance to the place from which it was extracted, but the most rigid examination failed to detect any communication whatever between the course of the ball and the cavity of the thorax, the walls of the latter being entire at every point. The lower lobes of both lungs were in a state of red hepatization. The upper portion of the left lung was of a dark green hue, infiltrated with very offensive pus, and so completely softened and disorganized that its removal entire from the body could not be effected. The pleura over this part of the lung was somewhat inflamed,

but the inflammation was chiefly confined to its posterior and lateral portions, whereas that portion which lay under the course of the ball presented little or no deviation from the normal condition. All the other viscera were carefully examined, and were found to be healthy. After the examination, an incision made into the left shoulder discovered a small collection of pus, but an examination of the other joints failed to discover anything similar. The abscess was not directly connected with the wound, so far as could be ascertained by dissection.

The treatment, throughout the case, was expectant, with the exception of the administration of stimulants towards the last.

This case appears to me to present a fair example of a gun-shot wound of the chest, accompanied by pulmonary inflammation independent of the injury or only indirectly connected with it, and also to show how errors in the diagnosis of such cases may be made. When the man was first seen, the absence of all indications of injury of the lung (excepting the position of the wounds of entrance and exit) rendered it probable that the lung had escaped injury, and the post-mortem examination proved this conclusion to be correct; but on the appearance of signs of pulmonary inflammation, after taking into fair consideration the facts that, on the one hand, inflammation of the pulmonary organs may arise from wounds of the walls of the thorax which do not penetrate the cavity of the latter, and that, on the other hand, the absence of signs of pulmonary injury at the time of the receipt of a wound or afterwards, does not prove conclusively that the lung has escaped harm, the probabilities seemed to be in favor of the case being one of penetration of the thorax, with lesion of the lung, and had no autopsy been made this conclusion would have been final. But if the patient had recovered from the attack of pneumonia, then the not unnatural conclusion would have been arrived at, that the case was one of recovery from gun-shot wound of the lung, which, of course, would have been en-Without disputing the possibility of recovery tirely incorrect. from gun-shot wounds of the lungs, may not some of the cases of recovery be explained by the case I have here reported?

## ON AMPUTATION OF THE THIGH.

Point Lookout, Md., Jan. 10th, 1863.

By John Green, Fellow of the Massachusetts Medical Society, Late Acting Assistant Surgeon U.S.A.

#### [Concluded from page 461.]

## DRESSING AND AFTER-TREATMENT OF STUMPS.

Before considering the subject of dressings, it may be well briefly to review the history of the processes of repair so far as they are concerned in the healing of the wound made by amputation. First

of all, it must be remembered that we have to deal with two totally distinct classes of tissues :- 1st, The soft parts, consisting of skin, areolar tissue, muscle, and dense fibrous tissue, which may all heal by the processes of immediate union, primary adhesion, adhesion of granulating surfaces, or by the slow process of granulation and cicatrization; and 2d, the bone, in which, even in subcutaneous injuries. as in simple fracture, the process of repair does not begin until after eight or ten days\* and upon whose sawn extremity granulations do not appear until the tenth day or later. + Now it is evident that the soft parts may unite by either of the three methods first mentioned, before the slightest change has taken place in the bone, for the soft parts probably never unite with the compact tissue of the sawn end of the bone by any much speedier process than the slow one of granulation. It is idle, therefore, to talk of the complete cure of a stump by first intention, for the sharp end of the bone will act for a considerable time as a foreign body, and will always excite more or less of suppuration in its neighborhood. We must not, therefore, be over anxious about the ligatures, for they really act beneficially by keeping open a convenient outlet for the discharges, which might otherwise burrow among the muscles and at last find vent in an abscess.§

In dressing a stump, then, we must aim to fulfil two distinct indications:-1st, To promote the union of the soft parts; and, 2d, to protect the soft coverings from the sharp end of the bone.

I have already insisted upon the importance of so arranging the successive steps of the operation as to secure a just relative propor-

Paget. Lectures on Surgical Pathology. Lecture XL, on Repair of Fractures.
 Ibid. Lecture IX., on Healing by Granulation.
 See Selillot. Op. Cit. Tome ire, page 344. Also Dupuytren, Legons Orales, tome 2me,

<sup>†</sup> See Sédillot. Op. Cit. Tome Ire, page 344. Also Dupnytren, Legous Oraies, tome zme, p. 403 et seq.

§ There has been much unprofitable discussion during the present century between the partizans and opponents of the practice of healing stumps and incised wounds generally by first intention. The early advocates of this plan of treatment in amputations were English surgeons who practised chiefly in the provinces, amid favorable atmospheric and hygienic influences. The chief opponents of early union were found among the distinguished surgeons of Paris, who have always had to contend against the enormous sanitary evils which exist in the great public hospitals of that city. As often happens, in such disputes, both parties were right, and each adopted that line of practice which local experience had shown to be best. In country practice, and even in towns of moderate size, wounds generally heal aromative and without much suppuration. In large cities, on the other hand, and especially parties were right, and each adopted that line of practice which local experience had shown to be best. In country practice, and even in towns of moderate size, wounds generally heal promptly and without much suppuration. In large cities, on the other hand, and especially neity hospitals, complete union by first intention is excessively rare, and the union of the skin and superficial parts only may do mischief, by confining the products of the suppuration of the deeper tissues. In the case of dressing after amputation, the whole point at issue is, whether we ought accurately to close the whole wound by sutures and plasters, or keep a channel open for the escape of the pus, by interposing a narrow strip of linen between the opposite surfaces. Even this difference is more in theory than in practice, for in a great many cases the ligatures act as a seton in maintaining an outlet for the discharges, and it matters very little whether we trust to the ligatures alone, or add to the size of the bundle by a roil of charpie or a strip of linen. No author at the present day, so far as I know, advises a return to the ancient practice of leaving the wound entirely open and waiting for it to heal by the gradual drawing in of the integuments, from the circumference to the centre, by the contaction of the cicatrix. The difference between the hyglenic influences of city and country can hardly be too strongly presented, for it has a most important bearing, both upon the retardent to be adopted as well as upon the probable result of a surgical operation. Thus many operations which are attended with very considerable danger in the practice of the great metropolitan hospitals, seem to be almost unattended by serious risk when performed in the country. A notable illustration of this point is found in the statistics of lithotomy as performed in the Western United States and the hospitals of Paris and London.

tion between the different tissues left for the purpose of covering the bone. The bone must be thoroughly protected by the preservation of a sufficient length of the deep muscles, which should, in turn, be covered either by integument or by a thin flap composed of skin According as these conditions have been fulfilled, will be the possibility of effecting a cure mainly by first intention. soft parts should be so ample as to admit of the complete approximation of the opposite cut surfaces throughout their entire extent, and that without exposing them to the slightest tension. Tension of the coverings is one of the most fruitful causes of failure in the attempt to secure union by first intention, and the irritation which it produces is often the beginning of a formidable train of accidents. Rather, therefore, than to expose the soft parts to any strain in the early dressings, the wound should be left open, according to the precepts of the older surgeons, and allowed to heal by cicatrization from the circumference to the centre.

In order to promote the union of the soft parts, they must be held in accurate contact with each other, skin with skin and muscle with muscle. This contact with the muscles should be aided by moderate pressure, applied to opposite sides of the stump, near its extremity, by means of soft compresses and a roller.\* The margins of the skin should also be brought together and held in place by the interrupted or twisted suture, or by strips of plaster. In circular amputations the wound can, in most cases, be easily closed by strips of plaster alone; but in the flap operations, a few points of suture are generally employed in addition. If the interrupted suture is used, the threads may be inserted at the time of the operation and loosely knotted together until the time arrives for finally adjusting them. The twisted, or hare-lip suture, holds the parts more firmly in place than any other, but its very firmness may become a source of serious danger should swelling or retraction of the soft parts take place. The small spring forceps, called "serres fines," have at least the advantage that they slip off before the tension can become excessive. If sutures are used they must be carefully watched, and removed upon the first sign of their causing pain or irritation. As a general rule they should be supported by strips of plaster placed between them, taking care, however, not to cover the wound so closely as to confine the discharges. Plasters are, on the whole, safer than sutures, especially if the case is to be left to the care of unknown or unskilful persons, and they can almost always be applied with sufficient exactness if the operation has been even tolerably performed.† If the common adhesive plaster (em-

<sup>•</sup> In the operation with a single flap, the nature of the support given to the flap must depend upon its form and position; in Mr. Teale's operation no such support is needed. † I have been led to the discussion of this question by the experience of several cases occurring in the army, in which serious and sometimes fatal accidents appeared to depend upon the tension of flaps confined by strong thread or wire sutures. See, also, Larrey's Campaign in Saxony, in the last volume of the Memoirs.

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plastrum resinæ) is used, it should be freshly spread, as it is apt to become brittle and non-adhesive when old. As commonly prepared, it is spread upon heavily-sized cotton cloth, and consequently separates from the cloth when wet. It is much more useful when spread upon old or unglazed cotton, for it then penetrates the fibre and renders it partially water-proof. As all resinous plasters are somewhat irritating to fresh wounds, it may frequently be advantageous to employ the isinglass plaster of Liston, which, when properly prepared, is nearly identical with the best water-proof court-plaster.\* It should be spread upon some fabric impervious to wa-

ter, or it will be loosened by the slightest moisture.

There is often considerable difficulty in applying plasters neatly and firmly, owing to the elasticity of the soft parts causing the wound To obviate this inconvenience, Liston was in the habit of securing the flaps by means of a few sutures, removing them as soon as the plasters become fixed. I have often found it convenient to apply the strips of plaster in the following manner, suggested by the common uniting bandage. The strips are applied in pairs, one strip of each pair being made narrower than the other, so that it may pass easily through a button-hole cut transversely in the wide strip, at about the middle of its length. The wide and narrow strips are applied alternately to the sides of the stump, so that the holes in the wide strips fall a little above the cut edge of the integument; the free end of each narrow strip is then passed through the hole in the opposite wide one, and by drawing upon the two ends the lips of the wound are closely approximated. thing is adjusted, the ends of the plasters are secured by sticking them down smoothly in the position they happen to assume. Used in this way the plasters offer many of the advantages generally ascribed to sutures, and they can besides be readily loosened and readjusted without disturbing other parts of the wound.†

The next condition for the accomplishment of speedy union is the absence of inflammation,‡ for the slightest inflammatory action is sufficient to prevent immediate union, and but a slight degree of it is consistent with union by primary adhesion. The dressings, therefore, for the first few days, should be such as are least likely to irritate the freshly divided tissues; all greasy applications should be avoided, and the parts should be disturbed as little as possible. The free use of water at this period generally does more harm than good, for it loosens the plasters and thus disturbs the apposition of the parts. Perhaps the best dressing is a narrow compress of soft

Liston's plaster, as finally improved by the inventor, "is composed of a solution of isinglass in spirit spread on slips of oiled silk; or silk glazed on one side only, and on the unglazed side." (Liston's Practical Surgery, ch. ii., on the Union and Dressing of Wounds.)
 Since adopting this plan in the army bospitals, I find that something very similar is described and strongly recommended by Prof. Nathan Smith. (Op. cit., page 222.)
 See Paget's Lectures on Surgical Pathology, chap. ix., p. 133 of 2d Am. Edition.

linen, moistened with water and covered with oiled silk\* to prevent evaporation; this will not need to be removed oftener than once or perhaps twice a day, and it is both neat and unirritating. After suppuration begins, the lateral compresses should be carefully adjusted at each dressing, so as to keep the granulating surfaces in contact with each other, and to prevent the accumulation of pus between them. At this stage, if the suppuration is abundant, no other dressing is required than lint or tow in sufficient quantity to absorb the matter discharged in the interval between two successive dressings;† should the discharges be scanty, however, it will be best to apply to the wound a narrow strip of linen greased with tallow or simple cerate. Saturating the dressings with water can be of no conceivable use during the progress of granulation; it is a slovenly practice, and generally causes much discomfort to the patient by wetting the bedding. The stump should be lightly covered, and protected from the weight of the bed-clothes. An excellent covering for the end of the stump may be made of a handkerchief, or a square piece of cotton or linen cloth, confined by a couple of turns of a roller; this will prevent the access of flies to the wound, and will thus afford an effectual protection against the development of maggots.1

The danger of accident from the pressure of the bone against the soft coverings depends, as has already been shown, upon the progressive retraction of the muscles, and it must be met, if at all, by combating this cause. This may be effected in two ways:-1st, by position, which, however, is more effectual in the leg than in the thigh; and 2d, by the application of a roller to the whole length of

the stump.

The muscles of the thigh, whose tension is affected by changes in the position of the limb, are chiefly those upon the posterior and inner aspect of the femur.§ The great mass of the muscles of this region, which arise from the tuberosity of the ischium, are put in a state of tension when the end of the stump is elevated, but are relaxed when the thigh is extended nearly in a line with the body. Three of the four anterior muscles, on the other hand, arise from the femur, and are therefore unaffected by the change in position. A change, therefore, from the elevated position which the stump is apt to assume, to the horizontal, may suffice, of itself, to relieve a

Instead of oiled silk we may use freshly oiled paper, rubber cloth, sheet rubber, tin foil, thin sheet lead from tea chests, or, on an emergency, a thick leaf, or a bit of soft bark,

thin sheet lead from tea chests, or, on an emergency, a thick leaf, or a bit of soft bark, &c. &c. &c.

+ Some absorbent material is absolutely required in army practice, where there is no time for superfluous dressings. For this purpose there is probably nothing better or cheaper than tow or oakum; lint answers well, but old linen is of more value in the form of rags than twen scraped or ravelled. Cotton batting does not absorb liquids readily.

† The presence of maggots in a wound is a disgrace to the dresser; they cause great irritation and utterly prevent union by first intention, and although in some cases of sloughing wounds they may hasten the "cleaning" by expediting the fall of the sloughs, the same end may be much better attained by the use of stimulant and antiseptic lotions.

† The long head of the biceps, the semi-membranosus, semi-tendinosus and adductor magnus.

slight degree of tension of the coverings, and is, besides, a valuable adjuvant to the method next to be described.\*

The use of the roller to prevent muscular retraction depends upon the principle that when a muscle contracts in length it increases proportionally in diameter; if, therefore, this increase in diameter be prevented, the muscular contraction cannot take place; and this is as true of a limb as of a single muscle. The remedy, then, for the tension which depends upon the retraction of the muscles, consists simply in applying a roller firmly and evenly to the whole stump as far as the next articulation, thus compressing all the muscles and effectually preventing their contractions. The roller should not be changed until it becomes soiled or loosened, and it is well to apply it in two parts, letting the main roller extend to within two or three inches of the end of the stump, and finishing the operation with a second shorter piece which may be changed at each dressing. The use of the roller in the manner and for the purpose just described, although taught by almost every surgeon of note who has written on the subject of amputations,† has, nevertheless, fallen of late into comparative neglect. A few surgeons, t who have adopted flap methods with flaps of very great length, have been able safely to dispense with the roller in a great majority of cases, but even after the best operation the flaps may slough, or unexpected retraction may take place, so as, after all, to render some artificial support necessary. In the common circular operation, as performed by Gooch, Alanson, Benj. Bell, Hey, and John and Charles Bell, the roller always formed an essential feature in the after-treatment, although these surgeons all inculcate the necessity of sawing the bone as high as it can be denuded, by the use of the retractor, after dividing the muscular and tendinous attachments at the linea aspera. I am not prepared, however, even in the case of circular operations, to deny the possibility, under favorable circumstances, of sawing the bone high enough to enable the dresser safely to dispense with the roller, but I am confident that, to ensure this safety, the bone must be sawn so much higher than is the usual practice as to render the circular methods, in many cases, extremely difficult of performance. With the exception of a very few double-flap operations, I have scarcely ever seen a stump of the thigh in which the use of the roller was not indicated during the greater part of the after-treatment; and whenever it has been tried, I have never known it fail to produce very decided benefit. In applying the roller,

<sup>•</sup> In the middle and upper thirds of the leg, where the muscles of the calf preponderate enormously over all the others, a bent position of the knee affords very great relief by relief the third the coverings and preventing perforation of the skin by the sharp spine of the tibia. So great is the advantage derived from this position, that I always adopt it, turning the patient upon his side, whenever there appears to be the slightest tension of the integrupents in front. integuments in front.

mteguments in front.

† Gooch. Alanson. Louis. Benj. Bell. Richerand. Astley Cooper. Hennen. John and Charles Bell. Guthrie. Sédillot and others.

‡ Liston. Teale.

† A late writer (Symonds, Med. Times and Gazette, Sept. 8, 1860, p. 230) has doubted the efficacy of the roller in preventing muscular retraction after amputation. It may be well,

certain precautions are necessary—it should be applied from above downwards, beginning in the vicinity of the articulation next above the point of amputation, and it should extend nearly or quite to the extremity of the stump, in order that it may compress the muscles of the limb throughout their entire length. Thus in the thigh, a few turns should be first taken around the pelvis, and the thigh approached in the manner known as the "spica." If the soft parts are deficient, or if they show a tendency to retract to an unusual degree. the bandage must be very firmly but smoothly applied, and for this purpose the roller with two heads is to be preferred. There is scarcely any danger of rolling a stump too tightly, if only the pressure is equally distributed, and although great trouble may be caused by the unskilful use of the roller after amputations, it is not to be compared to the danger which would attend the same lack of skill in bandaging a fractured limb.\* A second use of the roller is to prevent the burrowing of pus among the muscles and other tissues

prevent the burrowing of pus among the muscles and other tissues therefore, briefly to state my own experience. 1st. I have seen a few excellent stumps of the thigh in which the roller had not been used during any part of the treatment, but in all these cases the coverings were left very long, and extensive union took place by first intention. This was especially true of amputations performed with two equal flaps, which accords with the results given by Mr. Teale, in whose operation, also, the flaps are of very ample length. 2d. I have seen a large number of cases in which union by first intention has either failed or has been confined to the integuments, and in which retraction of the soft parts has taken place to such an extent as either to tear open the newly-formed adhesions or to threaten perforation of the coverings by the pressure of the end of the bone against them. In all cases of this character, I have immediately applied the roller in the manner described, and in every instance with the happiest result. In this way I have generally succeeded in covering the bone, even in cases in which the soft parts have been very deficient, and in all cases in which the bone has not already found its way through the coverings, I have been able to relieve the tension and prevent the occurrence of this accident. In other cases, where the stump has been very painful from the same cause, although there was probably no great danger of perforation, I have at once relieved the pain and completely arrested the spasmodic twitching of the muscles, which was often present as the result of the irritation. 3d. In amputations of the log near the ankle, the roller is of but liften use, for the integuments are firmly tied to the bones by the inter-muscular and inter-tendinous fascie, and the retraction of the great muscles of the calf only tends to draw the tendo Achillis a little higher in its sheath. The same is undoubtedly true of amputation at or near the wrist, of the complete in the sheath. The same is undoubtedly true of am

of the stump. This accident is of pretty frequent occurrence after amputation of the thigh, owing in part to the elevated position which the stump generally assumes during the progress of the case, and still more to ill-advised attempts to secure early union by the use of sutures. In such cases the careful use of the roller is of the greatest benefit.

The soft parts may also be relaxed in some cases, by means of two or more strips of adhesive plaster applied to the sides of the stump and connected with a weight hung over the foot of the bedstead. In this method,\* however, a roller should be applied to prevent the slipping of the plasters, and the result is no better than

that which follows the use of the roller alone.

A kind of paraphymosis or strangulation of the end of the stump by the skin is described by several writers. It can only occur when the skin and muscles have been divided nearly at the same level, but in such a case it may give rise to serious complications. It is rarely possible to make a good stump under such circumstances, but much benefit may result from the application of a roller, so as to relax the superficial muscles and permit the skin to be drawn down beyond the other soft parts. If the strangulation has existed for some time it may be necessary to divide the skin longitudinally for an inch or two on each side of the limb, especially if it has already become adherent to the subjacent muscles.

Great retraction of the integuments, accompanied by more or less protrusion of the bone, is often observed in stumps which have been badly managed. This may often be much relieved by the application of the roller, although the stump will be always defective from the want of soft parts to protect the end of the bone. In one or two cases of this kind, I have succeeded in materially improving the result by removing the prominent apex of the cone, which projected through the coverings, and sawing off the bone at the same By this comparatively trivial operation nothing was removed, except about an inch of the bone and a ring of thickened and partially ossified periosteum (callus). No further retraction took place, and the skin was readily drawn together over the whole end of the stump by means of strips of plaster, used in the manner already described (page 476.) The stump was quite handsomely rounded, and its only defect was that the bone was not so well protected by projecting muscle as it would have been had the bone been cut shorter at the time of the amputation and the stump been more judiciously treated.

REJECTION OF RECRUITS.—About 350 per 1000 of those who present themselves for medical examination, as recruits in the British Army, are said to be rejected on account of physical disability.

Attributed by Malgaigne to Follioy, of Brest. See Manuel de Médecine Operatoire, chap. xl., on Amputations.

#### CANCEROUS DISEASE OF THE CEREBELLUM.

[Read at the Annual Meeting of the Vermont State Medical Society, and communicated for the Boston Medical and Surgical Journal.]

BY E. A. POND, M.D., OF RUTLAND, VT.

MRS. E. N. M., aged 30 years, nine years married, had a miscarriage the second year, with considerable loss of blood. Dec. 21st, 1857, was confined at seven months; stillborn child. Her health has always been delicate. I first saw her in 1858, complaining of an acute attack—pain in right side, fever, voniting of bilious matters, &c., which passed off in a few days. These attacks occurred at intervals during her life, and her last sickness commenced with an attack of that kind, which led to the belief of a bilious obstruction. Pain in the back was felt at her menstrual period. Disturbances of this kind gradually subsided on the treatment for ulceration of the os uteri, which, upon examination, was found to exist. She afterwards suffered from occasional similar disturbances, until about four months before her death, when the periodical flow ceased, but again appeared during her last illness. The symptoms of disease of the brain were very obscure, and their development very gradual.

During 1861 she began to complain of slight dizziness and faintness, bad feeling in her head, occasional tingling and numbness of the arm, and the bowels were obstinately constipated, with dyspeptic symptoms. In the spring of 1862, gradual loss of vision was noticed, like one seeing through a veil. Also pain in head and neck, especially at night; increasing deafness of left ear; vertigo and slight attacks of unconsciousness, the patient falling, or, as she termed it, fainting, not always unconsciousness, and lasting but a few seconds. There was no redness or appearance of inflammation about the eyes at any of these times. These alarming symptoms increased, and in May, 1862, she consulted Dr. Henry J. Bigelow, of Boston, by letter, who advised bringing her there, to have her eyes examined, which was done by Dr. H. Derby, who has kindly placed the notes of his ophthalmoscopic examination at my disposal.

" MAY 13th, 1862.

"Mrs. E. N. Merriam, aged 29, was brought me by Dr. Pond. He states that vision was good till health began to fail, some eight years ago. At this time she had a miscarriage, followed by uterine difficulties. Of late there have been most unequivocal signs of cerebral disturbance, such as nausea, hemicrania, deafness, dizziness, &c. Complained only of "weakness" of the eyes till a year ago, when she began to see sometimes double, sometimes halves of objects. Vision has very gradually grown worse, especially since Sepber last.

"Eyes are quite hard, the left most so. The right pupil is immovable, except in sympathy with the other; the right eye has no perception of light, either qualitative or quantitative. The left pupil

reacts very slightly; perception of light only quantitative. She asserts, however, that on some days she can make out, dimly, the outlines of objects.

"The ophthalmoscope revealed both optic nerve entrances to be slightly blurred and indistinct; retinal veins very full; arteries almost thread-like. No other changes.

"In view of the undoubtedly cerebral original of the difficulty,

no special treatment of the eyes was deemed necessary.

HASKET DERBY."

After her return from Boston, she seemed to gain in flesh, and also thought her eyes better. She could at one time distinguish a sign in large letters across the street, the figures of her dress, carpet, &c.; but again her health gradually failed, the pain increased, the attacks of vomiting were more severe, and her sight entirely failed.

March 26th, 1863, she was seized with a very severe attack, pain in the side, vomiting, severe pain in the head, and great stiffness of the neck, increasing until it affected the entire joints and muscles. She could not be moved without causing severe pain. The bowels were obstinately constipated, and large accumulations of hardened fæces could be felt through the abdominal parietes, which were broken down and removed with considerable difficulty by enemas and cathartics. About two weeks after this seizure, she had partial paralysis of the muscles of deglutition, and for several days it was very difficult for her to take food or to speak. She gradually improved, but could not be raised up or moved without slight convul-April 19th, she had quite a severe convulsion, frothing at the mouth, and unconscious for two or three hours, but again recovered her mind, and was seldom delirious, notwithstanding the agony of pain which now pierced her head, neck, ear, and eyes, and which could only be modified by anodynes and chloroform. left eye was suffused with redness, and the conjunctiva was covered by yellowish blisters filled with serum. Copious vomiting of greenish bile then occurred every two or three days, until, finally, on the 14th of June, she sank, comatose, without a struggle, having preserved her mental faculties until within 48 hours of her death.

The hallucinations of sight were peculiar, for when she was asked, although perfectly blind, to describe what appeared to her, she said: "At first I used to see flowers and beautiful gardens, then faces, then I felt as though surrounded by a granite wall; after that an obscure object floated about, which finally settled down into a head like that of a marble statue without eyes. Then it was the back part of a head that seems to resemble mine; and lastly, and for a short time, I have seen only brains." The above is in her own words, as near-

ly as I can recollect.

Post mortem, 20 hours after death. Considerable emaciation; general sallow condition of the skin. Several ounces of yellowish

water had oozed from the mouth. On opening the head, six or seven ounces more of yellowish serum escaped. The brain was very pale, dura mater and arachnoid normal; but on removing the ccrebrum, we found in the cerebellum a tumor resting on the internal auditory foramen, and involving the auditory nerve. Chest healthy. Stomach presented appearances of thinning and softening of the mucous membrane, some parts being studded with minute red and black points. Liver rather large. The gall-bladder was thickened and fleshy, and contained three large-sized gall-stones—one of pure phosphate of lime. Bowels presented traces of old inflammations, but were otherwise normal. Uterus small, normal, except some slight induration of the neck.

The tumor of the brain was carefully examined by Dr. Benj. S. Shaw, Superintendent of the Massachusetts General Hospital, Boston. The following is his report:—"The tumor from the brain measured about an inch and a half in diameter, was nearly globular in form, enclosed a nerve of considerable size, and was surrounded by a thin membrane. There were portions of the growth which resembled encephaloid cancer, and also spots of extravasated blood. Under the microscope, it was found to be cancer, composed of cells containing large nuclei and nucleoli, with very little fibrous structure."

AN ACCOUNT OF AN ATTEMPT TO RESTORE TO ITS NATURAL APPEARANCE A PUTREFIED DEAD BODY, IN ORDER TO PROVE ITS IDENTITY.

By Benjamin Ward Richardson, M.A., M.D., Senior Physician to the Royal Indiamary for Diseases of the Crest.

On Saturday, the 9th instant, I conducted an inquiry to ascertain if a human body that had undergone putrefactive change to such a degree that it was unrecognizable, could be so far restored to the appearance of life as to be sworn upon in respect to its identity.

As the inquiry in question, from the circumstances by which it was surrounded, has created great public interest, as it opens a new line of research in regard to a medico-legal question of a very important nature, and as certain imperfect impressions are afloat concerning it, I take the opportunity of laying the exact scientific facts before the profession at the earliest possible moment.

To make every point clear to provincial and foreign brethren, let me state the simple narrative of the facts in the first place. Some weeks ago a woman named Emma Jackson was murdered in St. Giles's by having her throat cut in a house of ill-fame, to which she had retired with a man who had been seen by at least three persons, and whose appearance was clearly defined by them. This man, by some strange and almost inexplicable method, made his escape from

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the house without being seen to depart, and has not since been detected. Several persons have, however, been suspected, and one or two have been temporarily detained, but on examination they have

been discharged.

On Monday, May 4th, a man was dragged dead from the Thames. who in many respects seemed to answer to the description given of the assumed murderer. On the following Wednesday, Mr. Humphreys, the coroner for East Middlesex, held an inquest on the body of this man, but decomposition had advanced so far that none of the witnesses could arrive at any conclusion whatever respecting the body; it was, in fact, utterly unrecognizable. This statement having been made in the public papers on Thursday morning, I formed an opinion, derived from some researches on dead tissues, that it might be possible to alter the appearance of the body so much as to enable the witnesses to speak as to its identity. In the afternoon of Thursday last I met, accidentally, Dr. Lankester, who had held the inquest over the body of Emma Jackson, and I explained to him my views. He urged me very strongly to communicate with Mr. Humphreys. I did so, and through the kind aid of Dr. Edmunds got an interview with Mr. Humphreys on Friday night. Having given him an outline of the plan I proposed to follow, he deputed me to carry out the attempt, and requested Dr. Edmunds to be present and take part in conducting the suggested process. We were to act at once, as the adjourned inquest was to be held on Saturday.

At half-past ten on Saturday we were taken to the dead man, who was lying in a shell in the dead-house in Darby street, Tower-hill. He was dressed as he was when taken out of the water. His body generally, with the exception of the hands, was deeply discolored, and the face was so changed that it was quite impossible to form any opinion respecting either its color or feature; it was as black as the face of the darkest negro, and had it not been white when he was taken out of the water, I should say that the man would have been returned as a negro. The lips were enormously distended, and the nose was scarcely visible; the cheeks and evelids were also greatly distended. In fact, the putrefactive changes were so advanced that it required some little determination to proceed. Following, nevertheless, the course I had marked out, we immersed the body in water, and then added to the water twenty pounds of common salt; we also added gradually, in the course of the operation, one pint of common hydrochloric acid; and the body was allowed to remain under this solution for two hours. The object of this part of the process was to reduce the swelling of the features by The shell, being water tight, answered as a bath.

Meanwhile we charged a pail of water with fresh chlorine, and then, lifting the face out of the water in the shell, treated it with the chlorine water. I also directed a stream of chlorine gas for some time upon the face. The object of this part of the process was to restore the white color.

A little before one o'clock, both of the intentions we had in view were realized to a considerable degree. The tumefaction was relieved; and the face, from the deepest black, had become of the cast of light clay, common wood-ash, or the darker sort of straw paper. When the chlorine in vapor was passing over the face, the skin approached to white, but so soon as it was withdrawn the change to clay-like hue returned. So much was now accomplished that we were able to form a fair estimate of the man. We found that he was evidently a young man, not more probably than 21 years of age; he had a short, feeble moustache; his lower lip had a short, soft beard that had not been shaven, and his whiskers corresponded; his face was naturally round and full, and indeed his body generally was well nourished.

At one o'clock we left, and returned at two. We had arranged that a stream of chlorine should continue to play over the face in our absence, but, as we had no one to leave in charge, the gas became exhausted, and the face was a little darker when we returned.

Pursuing still the course I had prearranged, we opened the body. We found the viscera but little decomposed, and natural; the heart was empty and flaccid; the lungs free from congestion. We fixed a large tube in the aorta, through the left ventricle; and Dr. Edmunds tied the aorta in the thorax, so as to prevent any passage of fluid to the lower part of the body, and to the abdominal viscera. Then we injected a solution, consisting of chlorine water, chloride of zinc, and a little sesquichloride of iron. The object in this instance was to impregnate the tissues from within with the decolorizing agent, and to reduce the tumefaction. On forcing the injection, we found that great escape took place through the vessels that had been divided in opening the thorax. We therefore withdrew the tube from the aorta, and as the face was the part chiefly requiring attention, Dr. Edmunds laid bare the common carotid on the right side, and a small nozzle from the syringe was introduced into that vessel and tied. It must be understood that much care was required in forcing the injection through structures so decomposed and yielding, and that we dare not push this part of the operation too far. Had we used much force we should have produced extensive infiltration through the broken capillaries, and have destroyed the facial structures altogether. So soon, therefore, as the face was subjected to slight tension, the injection process was stopped. The time had now approached for the sitting of the jury at half-past 4, P.M. allowed all the water to drain away, drenched the body with pure water, and left it with the face covered with a piece of thick cloth, on which was poured a little hydrochloric acid and methylated alco-The face at this time was of a clayey color, and a little more full than natural; and although we felt that we had not brought it up to its perfect natural appearance, we believed that it might be recognizable by any one who had seen it during life, and especially that it was a face which a witness could swear was not that of any particular person whom he remembered, if there were not strong natu-

ral resemblances between the two.

The result indicated that we had effected even more than we had anticipated, and that, if we had not succeeded to the perfection we could have wished, we had fulfilled the practical part of our mission and all that was demanded of us; for the three witnesses who were there either to confirm or disprove the hypothesis that the man before them was the man last seen with the murdered woman, each and all swore without hesitation, on their second view of the un-

known man, that he was not the assumed murderer.

Margaret Curley, of 4, George-street, St. Giles's, swore that she had examined the deceased since the operation had been performed, but that she did not recognize him as a person she had seen before, nor as the person suspected; Charles Ansley, of 20, Peter street, bore the same testimony; and H. Stoke, the shoe-man, swore definitely that, from his inspection of the deceased since the operation, he was sure that he was not the man whom he had seen with Emma Jackson. The Coroner, in summing up, observed that the experiments made having enabled the witnesses to swear that the deceased man was not the man accused of the murder, they had fulfilled their purpose, and the jury returned a verdict in accordance with the evidence.

Reflections and Suggestions.—The fact that in a case so extreme as the one named, science has come in to render essential aid to justice, affords, I hope, subject for thought and renewed effort in the same direction. I am far from considering that we ought to stop where we have thus begun. I look upon this case, in fact, as a mere first and experimental trial, which, followed up, will lead to great perfection in one department of medical jurisprudence; and I feel, consequently, that I cannot conclude this paper better than by pointing out what improvements in the process have been suggested to me by the experience detailed above.

1. In respect to time. On another occasion I would ask to be allowed at least twenty-four hours for the performance of the process. The period of six hours was insufficient for the full develop-

ment of the required changes.

2. I should proceed by stripping the subject of all apparel.

3. After this the subject should be placed in a water-tight shell, in which a large tap for escape of water should be inserted, and the

body should be thoroughly washed with water.

4. After the washing, the body should be covered with water, and held beneath it by a few cross bars of wood. Then the lid of the shell should be temporarily but effectually closed down, and two openings should be made into the lid; through one of these open-

ings the free end of a tube, connected with a chlorine flask, should be passed beneath the surface of the water; while from the other opening should come another tube, the free end of which should turn over into a glass globe of water. These preliminaries arranged, fresh chlorine should be driven in until the water within is saturated by it, the fact of saturation being determined by the passage of chlorine through the escape-tube. When the water around the body should thus become charged with chlorine, the openings in the lid of the shell should be closed, and the whole should be left undisturbed for twelve hours.

5. On opening the lid after the interval of time named, common salt should be added to the water, until the hydrometer should stand several degrees above the specific gravity of the blood; the specific gravity of 1100 would answer for the solution. In this solution the body should remain immersed for twelve hours; the water should

then be drawn off and the body examined.

[If there were no deep decomposition and discoloration, the body, I believe, would now be ready for identification; but if the putrefaction were very deep-seated, it would be requisite to proceed further.]

6. If necessary, open the trunk of the body at this point, and make any post-mortem observations that may be required. The

head should not be opened at this stage.

7. After the post-mortem examination, in order to restore a more natural expression to the face, solutions should be injected into the external carotid of each side. The form of solutions I should suggest in another case would be-

(a) Water saturated with chlorine, and charged, in addition, with tincture of the sesquichloride of iron in the propor-

tion of two fluid drachms to the pint.

(b) Common fresh milk saturated with common salt.

Of injection a, I would recommend that from two to three ounces should be slowly injected on each side, to be followed, without removing the nozzle of the syringe from the vessel, by so much of solution b as should cause the slightest possible tension on the tissues of the face.

Lastly, if it were requisite to retain the body for some time, it would be advisable to cover it with wood spirit, containing one drachm to the gallon of the tincture of the sesquichloride of iron,

and to exclude it from the air.

In offering these suggestions, I beg that they may be accepted as open to revision; the principle recognized, the details are certain,

under experiment, to be simplified and improved.

In conclusion, I have to offer my warmest thanks to Dr. Edmunds for the energetic, friendly, and able part which he took in the very interesting inquiry to which I have called attention. His exertions contributed in a most important manner to the results obtained .-London Lancet, May 16, 1863.

### THE BOSTON MEDICAL AND SURGICAL JOURNAL.

### BOSTON: THURSDAY, JULY 16, 1863.

MILITARY HYGIENE.\*-No better proof of the fitness of the present Surgeon-General of the United States for the high and responsible office which he fills could be asked than the volume before us. It will take its place at once among the standard works on the subject. Any one conversant with the philosophical and inquiring mind of the author will readily understand that he is to be found among the most influential class of the profession at the present day, who are disposed to question pretty closely the claims of drugs to virtues which too often prove to be merely traditional, while they are ever on the alert to detect those causes which produce and perpetuate disease, and depend more upon an accurate knowledge of the laws of nature in treating it than upon any specific medication. His recent exclusion of the two powerful agents calomel and tartarized antimony from the medical supply table of the United States Army, at once shows his confidence in the power of such methods of treatment, and his indifference to the criticism of the routinists. He is not, however, insensible of the value of proper medication, but is "sure that the curative influences of hygienic measures have been too much neglected, and that drugs, the traditional actions of which have been positively disproved by physiological and chemical researches, as well as by the soundest deductions from pathology, are too frequently administered through a strict adherence to the routine which hinders the development of medical science, and cramps the powers of those who labor for its advancement." One object, therefore, which he had in view, "was to lay before the profession and those who contemplate entering it, some of the principal facts which bear upon the hydron contemplate entering it, some of the principal facts which bear upon the hydron contemplate entering it.

gienic condition of man in causing, preventing, and curing disease."

With such a motive, stimulated by the patriotic desire to do all in his power for the welfare of an army engaged in the noblest of causes and composed of materials such as the world has never before seen, in the midst of the overwhelming labors of his office, the Surgeon-General has taken from the hours which otherwise would have been given to repose the time necessary to produce this valuable contribution to sanitary science. Surely the nation is largely his debtor

The work is divided into sections, each of which is subdivided into chapters. The first section treats of the examination of recruits, and sets the seal of authority to this important matter, about which there has been heretofore so much indecision and remissness among our examining officers, and will be of great value hereafter in settling all doubtful questions. In this department of his subject he discusses very fully the topics of age and physical development as bearing on the question of fitness for military service, introducing much valuable in-

formation from high European authorities.

Section second treats of the agents inherent in the organism which affect the hygienic condition of men. Under this head he discusses, in successive chapters, race, temperaments, idiosyncrasy, habits, &c., the numerous influences growing out of the individual organization, always keeping in mind the special effect which such influences have in fitting or unfitting a man for a military life. The author then goes on, in section third, to speak of the external agents which influence man's health, such as the atmosphere and its various conditions, light, electricity, water, soil, climate, &c. &c., through twenty-nine chapters of most valuable and interesting matter.

Of these chapters, six, and they are among the most valuable in the book, are devoted to the subject of hospitals, in all the details of their construction and

A Treatise on Hygiene, with special reference to the Military Service. By WILLIAM A. HANNOND, M.D., Surgeon-General U. S. Army, &c. &c. Philadelphia: J. B. Lippincott & Co. Pp. 694.

arrangement, with special reference to the requirements of the military service. We take it for granted that the large barrack hospitals, of which so many have been constructed by the United States Government during the past year, may be regarded as answering more completely the objects of perfect fitness and economy than any other plan which has heretofore been devised. In his preliminary treatment of this subject, the Surgeon-General gives us much interesting information concerning some of the principal hospitals in Europe, illustrating his remarks with numerous plans of their construction. Of the public hospitals in the United States, he makes particular mention of the new City Hospital of Boston and the Episcopal Hospital of Philadelphia, honoring each with quite an extended notice, and introducing a number of designs showing their general structure. Of these, he says that they are "in some respects superior to any which have been constructed in any part of the world, and so far as can be perceived fulfil all the requirements of sanitary science." He compliments the Boston hospital specially for the architectural beauty of its design, as well as for its admirable arrangements. He perpetuates, in a handsome wood-cut, the original fagade as designed by Dr. Clark, and thus gives permanency of record to what we in Boston must now, alas! merely look upon as an institution of great usefulness and beauty, which we might have had, but for an "if." That "if" is still a mystery. How it happened that the original design for our hospital, so well conceived, so happily maturing, apparently, should appear at its birth in the shape and arrangement which it now bears—diminishing its utility and beauty so very seriously—is one of the unwritten secrets. Somebody else may reap the benefit of the original plan, however, through the Surgeon-General's commendation of it; it is lost to us here.

The Surgeon-General gives a very full account of the army barrack-hospitals, in all their details, with ground plans of many of them, and other illustrations of the various contrivances for ventilation, &c., so that this is a very valuable part of the work. and a most useful contribution to the literature of this subject.

Following the hospitals, come the subjects of barracks, camps, food, clothing, &c., all of them treated in a sensible and practical manner. These, want of space does not allow us to follow in detail. We will merely remark that our author, in speaking of stimulants, agrees with Böcker in his conclusion that alcohol is food. He comes to this opinion from experiments carefully conducted upon himself. In the first series he took food enough to keep the body at the ordinary standard of weight, and in addition four drachms of alcohol at each meal, diluted with water. Continuing this for five days, there was found to be a decided increase of weight, although the general health was somewhat disturbed. In the second, on a diet which was found to give a regular decrease of weight from day to day, the use of alcohol not only counteracted this, but caused an appreciable increase of weight. In the third series more food was taken than was needed, and the stimulant produced marked constitutional disturbance, although the weight regularly increased. From these results he concludes that alcohol must be regarded as food. It is to be noticed, however, that, as he states, in these experiments the amount of car-bonic acid and aqueous vapor exhaled from the lungs underwent diminution, as did also the quantity of urea excreted. The exact difference in the amount of these excretions before and under the use of alcohol is not given; and we would submit that this should be measured as accurately as possible before the question can be considered as settled. It may be that in these instances the increase of weight was after all only due to the retention of what would otherwise have been eliminated. In the second experiment the operation of the second agreeable. To quote his own words — Digestion was well performed, the mind agreeable of the nervous or circulatory was clear and active, and there was no excitement of the nervous or circulatory systems; in fact, all the functions of the body appeared to act with energy and efficiency. It is in these cases, therefore, that the proper use of alcohol is to be commended; that is, when the quantity of food is not such as to admit of the due performance of such physical or mental labor as may be necessary, or, what amounts to the same thing, when the digestive and assimilative functions are not so efficiently performed as to cause the digestion and appropriation of a sufficient quantity of the food ingested to meet the requirements of the system." Here, again, we would suggest, that the experiment goes quite as far to prove that alcohol is a stimulant merely, as that it is food.

We cannot close our notice of this interesting work without mentioning a fact we cannot close our notee of this interesting work without mentioning a fact stated in the preface, of peculiar importance at the present time in its bearing on the fitness of the negro race for military service. It is the comparative immunity of this race from the power of malarial disease. "From official reports which have recently come to hand, it appears that while the white troops are affected to the extent of 10.80 per cent. with diseases of malarious origin, the negro troops serving in the same army show only 0.80 of such diseases." A most remarkable exemption, clearly pointing to a most useful employment of such troops in our Southern and Western Service.

In conclusion, we must express our admiration of the beautiful manner in which this book has been published. Type of the largest and most luxurious character, fair paper in these days of dingy pages, and numerous and excellent wood-cuts, com-bine to make its exterior as attractive to the eye of taste as its valuable and inte-

resting contents are to the understanding.

VERMONT MEDICAL SOCIETY.—The semi-annual meeting of this Society was held in Woodstock on the 24th ult.—Dr. J. N. Stiles, President. The following new members were admitted:—Drs. S. A. Skinner, Bristol; B. Schermerhorn, Woodstock; R. H. Phelps, Barnard; John Harding, Hartland; O. F. Fassett, E. Berkshire; Hiram Crandall, Stockbridge; L. A. Richmond, Hartland; G. S. Goodrich, W. Berkshire; Jas. P. Osborne, Felchville; D. W. Hazelton, Cavendish; Ripley Clarke, Windsor. The subjects of diphtheria, typhoid fever and scarlatina were Clarke, Windsor. The subjects of diphtheria, typhoid fever and scarlatina were discussed. The following gentlemen, one from each County of the State, were appointed to report to each meeting of the Society the history of disease as manifested in their respective counties, embracing any epidemics that may have occurred:—Drs. Fassett, Rodiman, Simons, Upham, Bullard, Cushman, Blanchard, Bradford, Jos. Morgan, Hide, Carpenter, Hopkins, E. S. N. Morgan, Pond. At the P. M. session, interesting cases were reported by Drs. Blanchard, Rodiman, Fassett, and Brigham; one by Dr. McCollom, in which the iron portion of a penholder was coughed up after having been in the air-passages 11 months; and one by Dr. Fairchild, of hepatic abscess, with post-mortem discovery of communication from colon with abdominal cavity, and absence of left kidney and also of right testicle. Dr. Pond also presented two written cases. On recommendation of the Executive Committee, the following subjects were presented for discussion at the next annual meeting, and the President subsequently appointed the member named with each, to prepare a paper upon the same:—1. Chronic Pleurisy, Dr. Richmond; 2. Remedial Agents, Dr. Fassett; 3. Ulceration of the Mouth and Neck of the Uterus, Dr. Hazen; 4. Pneumonia, Dr. Brown.

#### VITAL STATISTICS OF BOSTON. FOR THE WEEK ENDING SATURDAY, JULY 11th, 1863. DEATHS.

Deaths during the week Ave. mortality of correspon Average corrected to increas Death of persons above 90	sed	popula	tion				-1863,	40	32 36.9 00 0	72 76.5 84.30 0
	Mo	rtality	fron	n Pr	evaili	ng Di	seases.			

Phthisis. | Croup. | Scar. Fev. | Pneumon. | Variola. | Dysentery. | Typ. Fever. | Diphtheria.

DIED,-In this city, 10th inst., Dr. John Stevens, 74.

Deaths in Boston for the week ending Saturday noon, July 11th, 72. Males, 40—Females, 32.—Abseess, 1—accident, 3—apoplexy, 1—disease of the bowels, 3—inflammation of the bowels, 1—disease of the brain, 2—bronchitis, 1—cholera inflamma, 4—consumption, 9—convulsions, 2—croup, 1—cystitis, 1—diebility, 1—diphtheria, 1—dropsy, 2—dropsy of the brain, 4—dysentery, 4—scarlet fever, 2—typhoid fever, 4—disease of the heart, 2—inflammation of the lungs, 3—marasmus, 3—old age, 2—paralysis, 1—peritonitis, 1—premature birth, 2—puerperal disease, 1—sore throat, 1—suffocated, 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 30—between 5 and 20 years, 8—between 20 and 40 years, 16—between 40 and 60 years, 11—above 60 years, 7. Born in the United States, 54—Ireland, 15—other places, 3.